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EXAMINER

FERNANDES, CHERYL M

ART UNIT PAPER NUMBER

2163

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/033,215

Applicant(s)

VISHIK, CLAIRE S.

Examiner

Cheryl M. Fernandes

Art Unit

2163

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in response to Amendment filed October 12, 2004. Claims 1-37 are pending. Claims 1, 12, 18, 21, and 37 are amended.

Response to Arguments

2. Referring to the objection to the specification, Applicant's arguments are acknowledged. As such, the objection to the specification is withdrawn.
3. Referring to the 35 USC 101 rejections of claims 1-37, Applicant's amendments to claims 1, 18, 21, and 37 overcome the 35 USC 101 rejections. As such, the 35 USC 101 rejections of claims 1-37 are withdrawn.
4. Referring to the 35 USC 112 first paragraph rejections of claims 1-7, 21-23, 34, and 37, the Examiner, upon further review, has withdrawn the 35 USC 112 first paragraph rejections of the noted claims, as indicated in Interview Summary filed October 19, 2004.
5. Referring to the 35 USC 112 first paragraph rejections of claim 12, Applicant's arguments with respect to the claim are acknowledged. As such the 35 USC 112 first paragraph rejection of claim 12 is withdrawn.
6. Referring to the 35 USC 112 first paragraph rejections of claim 18, Applicant's arguments with respect to the claim are acknowledged. As such the 35 USC 112 first paragraph rejection of claim 18 is withdrawn.

7. Referring to the 35 USC 112 second paragraph rejections of claims 1, 21, 24, and 37, Applicant's arguments with respect to the claims are acknowledged. As such the 35 USC 112 first paragraph rejections of claim 1, 21, 24, and 37 are withdrawn.

8. Referring to the 35 USC 112 second paragraph rejections of claim 18, Applicant's arguments with respect to the claim are acknowledged. As such the 35 USC 112 second paragraph rejections of claim 18 are withdrawn.

9. Applicant's arguments, see page 12-13, filed October 12, 2004, with respect to the rejection(s) of claim(s) 18 and 21 under 35 USC 102(e) have been fully considered and are persuasive. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art references, one of which includes- "PVA: a self-adaptive personal view agent system" by Chen et al.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1, 18, 21, 24, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Publication Number 2001/0013087 by Ronstrom, and further in

view of "PVA: a self-adaptive personal view agent system" by Chen et al (hereafter Chen).

Referring to claim 18, Ronstrom discloses a computer-implemented method for maintaining a dynamic taxonomy (Abstract; Fig. 2 and 3), the method comprising the steps of:

- determining a threshold usage value for each node of a plurality of nodes of said dynamic taxonomy ('access frequency range' comprising of 'lower and upper access frequency threshold values' determined for each object node, Fig. 4, ST2; para. 59);
- determining an actual usage value for each node of said plurality of nodes ('access frequency' for each object node, Fig. 4, ST4; para. 63, 64);
- comparing said actual usage value for a first node of said plurality of nodes with said threshold usage value for said first node of said plurality of nodes (para. 60 and 64).

While Ronstrom discloses all of the above claimed subject matter and also discloses that said actual usage value for said first node is less than said threshold usage value for said first node (see para. 60, where the access frequency of object (i+1) is less than the lower access frequency value; see also claim 5 of Ronstrom, third paragraph), Ronstrom remains silent as to the merging of said first node with a related lateral node if said actual usage value for said first node is less than said threshold usage value for said first node.

However, Chen teaches analogous art wherein a node is merged with a related parent lateral node¹ if an actual value for a first node is less than a threshold value for the first node (see part 3, page 258; 4.2, 4.3.2 on pages 258-260).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ronstrom to include a node being merged with a related parent lateral node if an actual value for a first node is less than a threshold value for the first node, as taught by Chen.

The ordinary skilled artisan would have been motivated to modify Ronstrom per the above for the purpose of removing out-of-favor categories, i.e. categories with low energy values, in order to keep a personal view on par with user's interests and trends (Chen, see part 4.3.2 on pages 259-260).

Referring to claim 21, Ronstrom discloses logic encoded in a computer-readable media for adaptable maintaining a taxonomy defined by a plurality of nodes arranged hierarchically (Abstract; Fig. 2 and 3; para. 6-7), and operable to:

- determining a threshold access value for each node of a plurality of nodes of said dynamic taxonomy ('access frequency range' comprising of 'lower and upper access frequency threshold values' determined for each object node, Fig. 4, ST2; para. 59);
- determining a level of access value for each node of said plurality of nodes ('access frequency' for each object node, Fig. 4, ST4; para. 63, 64);

¹ Examiner interprets a related parent node to be a related lateral node.

- comparing said level of access value for a first node of said plurality of nodes with said threshold access value for said first node of said plurality of nodes (para. 60 and 64).

While Ronstrom discloses all of the above claimed subject matter and also discloses that said level of access value for said first node is less than said threshold access value for said first node (see para. 60, where the access frequency of object (i+1) is less than the lower access frequency value; see also claim 5 of Ronstrom, third paragraph), Ronstrom remains silent as to the merging of said first node with a related lateral node if said level of access value for said first node is less than said threshold access value for said first node.

However, Chen teaches analogous art wherein a node is merged with a related parent lateral node² if level of access value for a first node is less than a threshold access for the first node (see part 3, page 258; 4.2, 4.3.2 on pages 258-260).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ronstrom to include a node being merged with a related parent lateral node if a level of access value for a first node is less than a threshold value for the first node, as taught by Chen.

The ordinary skilled artisan would have been motivated to modify Ronstrom per the above for the purpose of removing out-of-favor categories, i.e. categories with low

² Examiner interprets a related parent node to be a related lateral node.

energy values, in order to keep a personal view on par with user's interests and trends (Chen, see part 4.3.2 on pages 259-260).

Referring to claim 1, Ronstrom discloses a computer-implemented method for adaptably maintaining a taxonomy defined by a plurality of nodes arranged hierarchically (Abstract; Fig. 2 and 3), the method comprising the steps of:

- determining a threshold access value for each node of said plurality of nodes ('access frequency range' comprising of 'lower and upper access frequency threshold values' determined for each object node, Fig. 4, ST2; para. 59);
- determining a level of access value for each node of said plurality of nodes ('access frequency' for each object node, Fig. 4, ST4; para. 63, 64);
- comparing said level of access value for a first node of said plurality of nodes with said threshold access value for said first node of said plurality of nodes; and
- comparing said level of access value for said first node of said plurality of nodes with said threshold access value for a second node of said plurality of nodes (para. 60, 64, 80, 81), and if said level of access value for said first node is greater than said threshold access value for said second node, promoting said first node to a higher level in said hierarchical arrangement than said second node (see Fig. 2, wherein warm region OB2 is promoted to hot region OB8; para. 59-68 and 80-81), and if said level of access value for said first node is less than said threshold access value for said second node, demoting said first node to a

lower level in said hierarchical arrangement than said second node (see Fig. 3, wherein OB* in RCS-2 is demoted to PCS-1; para. 59-68 and 80-81).

While Ronstrom discloses all of the above claimed subject matter and also discloses that said level of access value for said first node is less than said threshold access value for said first node (see para. 60, where the access frequency of object (i+1) is less than the lower access frequency value; see also claim 5 of Ronstrom, third paragraph), Ronstrom remains silent as to the merging of said first node with a related lateral node if said level of access value for said first node is less than said threshold access value for said first node.

However, Chen teaches analogous art wherein a node is merged with a related parent lateral node³ if level of access value for a first node is less than a threshold access for the first node (see part 3, page 258; 4.2, 4.3.2 on pages 258-260).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ronstrom to include a node being merged with a related parent lateral node if a level of access value for a first node is less than a threshold value for the first node, as taught by Chen.

The ordinary skilled artisan would have been motivated to modify Ronstrom per the above for the purpose of removing out-of-favor categories, i.e. categories with low energy values, in order to keep a personal view on par with user's interests and trends (Chen, see part 4.3.2 on pages 259-260).

³ Examiner interprets a related parent node to be a related lateral node.

Referring to claim 24, the limitations of the claim repeat the respective limitations of claim 1 above, in the form of a computer-implemented system (Ronstrom, Abstract; Fig. 2, para 34). As such, claim 24 is rejected for the same reasons as claim 1.

Referring to claim 37, the limitations of the claim repeat the respective limitations of claim 1 above, in the form of a computer-implemented system (Ronstrom, Abstract; Fig. 2, para 34). As such, claim 37 is rejected for the same reasons as claim 1.

Referring to claim 2, Ronstrom/Chen discloses that the threshold access value comprises a threshold user access value, said level of access value comprises a level of user access value, and said user includes at least a person, automatic browsing device, or data collection device (Ronstrom, para. 4, 8, and 73-75; Chen, Abstract, Introduction).

Referring to claims 3 and 25, Ronstrom/Chen discloses usage of information content associated with each node (Ronstrom, Abstract; para. 6 and 58; Chen, Abstract; Introduction; pages 258-260).

Referring to claims 5 and 27, Ronstrom/Chen discloses merging said first node with a related node arranged laterally to said first node in said hierarchical arrangement

comprises retiring said first node and combining a content of said first node with a content of said related node (Chen, part 3, page 258; 4.2, 4.3.2 on pages 258-260).

Referring to claims 6 and 28, Ronstrom/Chen discloses said related node arranged laterally to said first node comprises a node arranged in parallel and in a same category with said first node (Chen, see Fig. 3 on page 260).

Referring to claims 7 and 29, Ronstrom/Chen discloses a plurality of nodes arranged hierarchically as a tree structure (Chen, see Fig. 3 on page 260).

Referring to claims 8 and 30, Ronstrom/Chen discloses a top-down multi-level taxonomy (In light of the instant specification which describes a taxonomy as a tree of information nodes in para. 3, refer to Chen, Fig. 3 on page 260).

Referring to claims 9 and 31, Ronstrom/Chen discloses node identification by a proximity feature associated with said first node and said related node (Chen, 'energy value', see last paragraph of page 258 and first paragraph of page 259).

Referring to claims 14 and 34, Ronstrom/Chen discloses a taxonomy comprising a WWW directory (Chen, 'user interest in Internet documents', see Abstract; keywords; 'personalization of WWW access', Introduction).

Referring to claims 19, 20, 22, and 23, Ronstrom/Chen discloses

- comparing said level of access value (actual usage value) for said first node of said plurality of nodes with said threshold access (usage) value for a second node of said plurality of nodes (Ronstrom, para. 60, 64, 80, 81), and
- if said level of access value (actual usage value) for said first node is greater than said threshold access (usage) value for said second node, promoting said first node to a higher level in said hierarchical arrangement than said second node (Ronstrom, see Fig. 2, wherein warm region OB2 is promoted to hot region OB8; para. 59-68 and 80-81), and
- if said level of access value (actual usage value) for said first node is less than said threshold access (usage) value for said second node, demoting said first node to a lower level in said hierarchical arrangement than said second node (Ronstrom, see Fig. 3, wherein OB* in RCS-2 is demoted to PCS-1; para. 59-68 and 80-81).

11. Claims 13 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ronstrom, in view of Chen, as applied to claims 1 and 24 above, and further in view of US Patent Number 6,134,532 issued to Lazarus et al (hereafter Lazarus).

Referring to claims 13 and 33, the combination of Ronstrom/Chen discloses all of the above claimed subject matter but remains silent as to a product catalog database.

However Lazarus discloses analogous art that includes a product catalog database (col. 24, line 35 – col. 25, line 15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Ronstrom/Chen to include a product catalog database, as taught by Lazarus.

The ordinary skilled artisan would have been motivated to further modify Ronstrom/Chen per the above for the purpose of providing highly valuable information about the characteristics of the users who purchase the products in the database (Lazarus, col. 25, lines 8-10).

12. Claims 4 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ronstrom, in view of Chen, as applied to claims 1 and 24 above, and further in view of US Patent Number 6,470,344 B1 issued to Kothuri et al (hereafter Kothuri).

Referring to claims 4 and 26, the combination of Ronstrom/Chen discloses all of the above claimed subject matter but remains silent as to disclose determining a sum of user access requests to each node and at least one child of said each node plus a sum of searches or queries performed wherein a result of said searches or queries includes at least one of said each node or a content of said at least one of said each node

However Kothuri discloses analogous art wherein determination is made as to a sum of user access requests to each node and at least one child of said each node and a sum of searches or queries performed wherein a result of said searches or queries includes at least one of said each node or a content of said at least one of said each

node (refer to Abstract; col. 4, lines 38-48; col. 25, lines 24-43; col. 26, lines 21-39, Fig. 8A). Referring to Fig. 8A and the cited areas above, Kothuri teaches a buffering technique in which counters are incremented each time a node is accessed and as queries are performed, thus keeping count of the number of times a node is accessed and the number of queries performed.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Ronstrom/Chen to include determining a sum of user access requests to each node and at least one child of said each node and a sum of searches or queries performed wherein a result of said searches or queries includes at least one of said each node or a content of said at least one of said each node, as taught by Kothuri.

The ordinary skilled artisan would have been motivated to further modify Ronstrom/Chen per the above for the purpose of using the buffering technique of Kothuri in environments in which data operations are not uniformly distributed within the dataspace, to be able to efficiently retrieve multi-dimensional/multi-attribute data and buffer data as database queries are processed (Kothuri, col. 3, lines 12-15; col. 4, lines 46-48).

13. Claims 10, 11, 12, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ronstrom, in view of Chen, as applied to claims 1 and 24 above, and further in view of US Publication Number 2002/0083067 A1 by Tamayo et al (hereafter Tamayo).

Referring to claims 10, 11, 12, and 32, the combination of Ronstrom/Chen discloses all of the above claimed subject matter but remains silent as to:

- a sum of different IP addresses computed for a predetermined interval of time (claims 10, 11, and 32); and
- a sum of different devices' Ids computed for a predetermined interval of time (claim 12).

However Tamayo discloses analogous art wherein:

- a sum of IP addresses is computed for a predetermined interval of time (para. 102 and 109) (claims 10, 11, and 32); and
- a sum of different devices' Ids computed for a predetermined interval of time ('code identifying browser and operating system used to make request', para. 102) (claim 12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Ronstrom/Chen to include a sum of IP addresses and a sum of different devices' Ids computed for a predetermined interval of time, as taught by Tamayo.

The ordinary skilled artisan would have been motivated to further modify Ronstrom/Chen per the above for the purpose of using TCP/IP packet sniffing over traditional log files to provide real time data collection, to capture information not found in log files, and because packet sniffing can support any Web server as it is

independent of log file format and underlying operating system (Tamayo, see para. 102).

14. Claims 15 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ronstrom, in view of Chen, as applied to claims 1 and 24 above, and further in view of US Patent Number 6,055,515 issued to Consentino et al (hereafter Consentino).

Referring to claims 15 and 35, the combination of Ronstrom/Chen discloses all of the above claimed subject matter but remains silent as to advertisement pricing information.

However Consentino discloses analogous art that includes advertisement pricing information (Abstract; Summary, lines 57-64; col. 13, lines 9-57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Ronstrom/Chen to include advertisement pricing information, as taught by Consentino.

The ordinary skilled artisan would have been motivated to further modify Ronstrom/Chen per the above for the purpose of making it easier for a user to relate a product number in a database with its description through configurable node labels that contain pricing as one of their attributes. In addition the invention of Consentino enhances the tree control's ability to navigate data structures by providing the user with more useful information so that the product number and its related name are displayed at the same time (Consentino, col. 7, line 48- col. 8, line 18).

15. Claims 16 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ronstrom, in view of Chen, as applied to claims 1 and 24 above, and further in view of US Patent Number 6,243,750 B1 issued to Verma.

Referring to claims 16 and 36, the combination of Ronstrom/Chen discloses all of the above claimed subject matter but remains silent as to a dynamic pricing map based on usage.

However Verma discloses analogous art wherein a dynamic pricing map is used to determine the number of hits on a website because the cost of advertisement space on a web page is directly related to the popularity or number of hits each web site receives (see Background; col. 1, line 45- col. 2, line 22; col. 2, lines 55-67; col. 4, lines 1-13; col. 6, lines 1-26).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Ronstrom/Chen to include dynamic pricing map based on usage, as taught by Verma.

The ordinary skilled artisan would have been motivated to further modify Ronstrom/Chen per the above for the purpose of provide reliable measurement of advertisement effectiveness on the Web when using advertising agencies and to measure hits on a web site without the requirement to constantly engage the advertiser (Verma, col. 4, lines 55-67).

16. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ronstrom, in view of Chen, as applied to claim 1 above, and further in view of US Publication Number 2003/0059029 A1 issued to Mengshoel et al (hereafter Mengshoel).

Referring to claim 17, the combination of Ronstrom/Chen discloses all of the above claimed subject matter but fails to disclose a call center resource allocation map based on usage.

However, Mengshoel discloses analogous art wherein calls to a call center are classified in order to be allocated among the agents of the center (Abstract; para. 2, 11, 12, 24-26, 28-31, and 41).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Ronstrom/Chen to include call center resource allocation map based on usage, as taught by Mengshoel.

The ordinary skilled artisan would have been motivated to further modify Ronstrom/Chen per the above for the purpose of enabling the assignment of agents to be more flexible when routing the agents according to skill (Mengshoel, para. 11).

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- 'Reorganizing web sites based on user access patterns' by Fu et al;
- 'Web usage mining for Web site evaluation', by Spiliopoulou.

Art Unit: 2163

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl M Fernandes whose telephone number is (571) 272-4018. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on (571) 272-4023. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 25, 2005
CMF


UYEN LE
PRIMARY EXAMINER